WHAT IS CLAIMED IS:

1. A method for estimating indicated toque in an engine comprising:

estimating in-cylinder combustion pressure; and

calculating indicated torque based on the estimated in-cylinder combustion pressure and engine geometry.

2. The method of claim 1 wherein estimating in-cylinder combustion pressure comprises estimating in-cylinder combustion pressure using an estimation model function.

3. The method of claim 2 wherein said estimation model function is a first order non-linear model comprising measured values of crankshaft position, speed, and acceleration.

4. The method of claim 3 comprising a stochastic estimation method to build cross-correlation functions between said in-cylinder pressure and measured values of crankshaft position, speed, and acceleration.

5. A method for estimating indicated toque in an engine comprising:

estimating individual in-cylinder torque for each cylinder in said engine; and

calculating summations of said individual cylinder torques.

6. The method of claim 5 wherein estimating individual in-cylinder torque for each cylinder comprises estimating individual in-cylinder torque using an estimation model function.

7. The method of claim 6 wherein estimating in-cylinder torque for each cylinder comprises estimating individual in-cylinder torque using an estimation model function.

8. The method of claim 7 wherein said estimation model function is a first order non-linear model comprising measured values of crankshaft dynamics.

9. A method for estimating indicated toque in an engine comprising:

directly estimating the summation of individual cylinder torques.

10. A method for estimating indicated toque in an engine comprising:

performing crankshaft speed deconvolution using discrete Fourier Transfer;

determining a frequency response function for said crankshaft speed deconvolution; and

evaluating indicated torque in the frequency domain.

11. The method of claim 10 wherein crankshaft speeds are determined using a SISO model.

12. The method of claim 11 wherein the indicated torque is an input to the SISO model, and the crankshaft speed is an output from the SISO model.

13. A method of controlling an engine comprising:

estimating indicated toque in said engine; and

controlling said engine in response to said estimated indicated torque.

14. The method of claim 13 wherein estimating indicated toque comprises estimating indicated toque using a stochastic method.

15. The method of claim 14 wherein estimating indicated toque using a stochastic method comprises:

estimating in-cylinder combustion pressure; and

calculating indicated torque based on the estimated in-cylinder combustion pressure and engine geometry.

16. The method of claim 13 wherein estimating indicated toque comprises estimating indicated torque using a frequency domain method.

17. The method of claim 16 wherein estimating indicated torque using a frequency domain method comprises:

performing crankshaft speed deconvolution using discrete Fourier Transfer;

determining a frequency response function for said crankshaft speed deconvolution; and

evaluating indicated torque in the frequency domain.

18. The method of claim 13 wherein estimating torque in said engine comprises using an estimation model function.

19. A torque estimator for an engine, said torque estimator adapted to estimate in-cylinder combustion pressure and calculate indicated torque based on the estimated in-cylinder combustion pressure and engine geometry.

20. A torque estimator for an engine, said torque estimator adapted to perform crankshaft speed deconvolution using discrete Fourier Transfer, determine a frequency response function for said crankshaft speed deconvolution, and evaluate indicated torque in the frequency domain.